

IN THE CLAIMS:

1. (Original) A method for fabricating a flash memory device comprising:
fabricating a gate structure comprising a tunnel oxide layer, a floating gate layer, an oxide layer, and a control gate layer on a semiconductor substrate; and
repairing said tunnel oxide layer using a rapid thermal oxidation (RTO) process.
2. (Original) The method as recited in Claim 1, further comprising:
creating a first impurity concentration in said semiconductor substrate prior to said repairing; and
creating a second impurity concentration in said semiconductor substrate prior to said repairing.
3. (Original) The method as recited in Claim 2, wherein said fabricating comprises fabricating a gate structure that is less than 0.21 microns (0.21μ) in length.
4. (Original) The method as recited in Claim 1, wherein said repairing comprises:
creating additional oxide material in a damaged region of said oxide layer.
5. (Original) The method as recited in Claim 1, wherein said rapid thermal oxidation process comprises exposing said semiconductor structure to a temperature of 1000° C for a period of time not longer than 20 seconds.

6. (Original) The method as recited in Claim 1, wherein said rapid thermal oxidation process comprises selecting a plurality of process parameters wherein a portion of said tunnel oxide layer retains a uniform profile after said rapid thermal process is performed.

7. (Currently Amended) A method for fabricating a memory device comprising:
fabricating a gate structure upon a semiconductor substrate;
depositing a dopant in a first region of said semiconductor substrate and in a second region of said semiconductor substrate; and
performing a rapid thermal oxidation (RTO) process upon said semiconductor substrate, wherein additional oxide material is created in a damaged region of an oxide layer of said gate structure.

8. (Original) The method as recited in Claim 7, wherein said memory device comprises a flash memory device and comprising fabricating a floating gate memory structure upon said semiconductor substrate.

9. (Original) The method as recited in Claim 8, wherein said fabricating comprises fabricating a floating gate structure that is less than 0.21 microns (0.21μ) in length.

10. (Cancelled)

11. (Original) The method as recited in Claim 11, wherein said rapid thermal oxidation process comprises selecting a plurality of process parameters wherein a portion of said tunnel oxide layer retains a uniform profile after said rapid thermal process is performed.

12. (Original) The method as recited in Claim 11, wherein said rapid thermal oxidation process comprises exposing said semiconductor structure to a temperature of 1000° C for a period of time not longer than 20 seconds.

13. (Currently Amended) A method for fabricating a memory device comprising:
depositing a plurality of layers upon a semiconductor substrate;
patterning said plurality of layers to create a stack gate; and
performing a rapid thermal oxidation (RTO) upon said stack gate, wherein additional oxide material is created in a damaged region of an oxide layer of said stack gate.

14. (Original) The method as recited in Claim 13, further comprising:
creating a source region wherein a first impurity concentration is deposited in said semiconductor substrate; and
creating a drain region wherein a second impurity concentration is deposited said semiconductor substrate.

15. (Original) The method as recited in Claim 14, wherein said patterning comprises creating a stack gate upon said semiconductor substrate that is less than 0.21 microns (0.21μ) in length.

16. (Cancelled)

17. (Original) The method as recited in Claim 16, wherein said rapid thermal oxidation process comprises selecting a plurality of process parameters wherein a portion of said tunnel oxide layer retains a uniform profile after said rapid thermal process is performed.

18. (Original) The method as recited in Claim 17, wherein said rapid thermal oxidation process comprises exposing said semiconductor structure to a temperature of 1000°C for a period of time not longer than 20 seconds.